

Appl. No.: 09/768,507  
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AMENDMENT TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (currently amended) A digital camera comprising:

(a) a housing having a lens barrel movable along an optical axis;

(b) a zoom lens group and a focus lens group movable relative to one another along the optical axis in the lens barrel;

(c) a zoom motor connected to the lens barrel operable for moving the lens barrel to a position corresponding to a selected magnification;

(d) a focus motor connected to the focus lens group operable for moving the focus lens group to a focus position corresponding to the selected magnification;

(e) a lens cover movable between closed and open positions for protecting at least one lens, and a lens cover driving motor connected to the lens cover, operable for moving the lens cover between closed and open positions;

(f) an electric power source;

(g) a controller connected to the electric power source and controlling the zoom motor and the focus motor, the controller determining during power initiation whether ~~a~~ an amount of voltage decrease from the electric power source ~~during~~ caused by an operation of one of the lens cover driving motor and the zoom motor is less than a predetermined value, and if so, controlling the zoom motor and the focus motor to substantially overlap in operation to

move the lens groups to initialization positions; and

(h) an image sensor supported in the housing for receiving light through the lens groups, and operable for producing data in correspondence with light received through the lens groups for image recording.

2. (original) The digital camera according to Claim 1, wherein if said voltage decrease is greater than the predetermined value, said controller drives one of said zoom motor and said focus motor to move one of said zoom lens group and said focus lens group to an initialization position, and then drives the other motor to move the other lens group to an initialization position.

3. (original) The digital camera according to Claim 2, wherein when said voltage decrease is greater than the predetermined value, said controller drives said zoom motor to move said zoom lens group to an initialization position, and then drives said focus motor to move said focus lens group to an initialization position.

4. (original) The digital camera according to Claim 1, wherein said controller includes a clock, the controller determining electric energy availability of the power source on the basis of at least one of a power source voltage value during power initiation and the voltage decrease when one of the lens cover driving motor and said zoom motor is driven, and when the electric

energy energy availability is less than a predetermined amount, sets a lower clock frequency for the clock.

Claims 5-10 (canceled).

11. (currently amended) A method for activating a digital camera having a zoom and focus lens group respectively driven by a zoom and focus motor, a lens cover driven by a lens cover driving motor, and a power source, the method comprising:

(a) determining a power source voltage available upon power initiation prior to driving any of the motors;

(b) operating at least one of the lens cover driving motor and the zoom motor during power initiation, and determining an amount of power source voltage decrease caused by the operation; and

(c) substantially overlapping operation of the zoom and focus motors to drive the zoom and focus lens group to initialization positions if the amount of power source voltage decrease is less than a predetermined amount.

12. (original) The method of Claim 11, further comprising operating one of said zoom motor and said focus motor so as to move one of said lens groups to an initialization position when said power source voltage decrease is greater than a predetermined value, and then operating the other motor so as to move the other lens group to an initialization position.

13. (original) The method of Claim 12, wherein said zoom motor is operated so as to move said zoom lens group to an initialization position when said power source voltage decreases is larger than the predetermined value, and then operating said focus motor so as to move said focus lens group to an initialization position.

14. (original) The method of Claim 12, wherein the digital camera includes a clock, further comprising:

determining an amount of electric energy available from the power source on the basis of at least one of a power source voltage value upon power initiation and the power source voltage decrease; and

setting a lower frequency for the clock in the amount of electric energy determined to be available is less than a predetermined amount.

15. (original) The method of Claim 11, further comprising ceasing operation of said focus motor when said power source voltage is less than a predetermined value when said zoom motor and said focus motor are being operated simultaneously.

16. (original) The method of Claim 11, further comprising:

determining whether the power source is connected to an alternating power source upon power initiation; and  
substantially overlapping operation of said zoom motor and

said focus motor so as to move said zoom lens group and said focus lens group to initialization positions if the power source is connected to an alternative power source.

17. (original) The method of Claim 16, wherein determining whether the power source is connected to an alternating power source is determined on the basis of the power source voltage available upon power initiation and the amount of power source voltage decrease when one of said lens cover driving motor and said zoom motor is driven.

18. (original) The method of Claim 16, wherein the power source is determined to be connected to the alternating power source if the power source voltage is at least 2.9 V.

19. (original) The method of Claim 16, wherein the digital camera includes a clock, further comprising:

determining an amount of electric energy available from the power source on the basis of at least one of a power source voltage value upon power initiation and the power source voltage decrease; and

setting a lower frequency for the clock if the amount of electric energy determined to be available is less than a predetermined amount.

20. (original) The method of Claim 11, wherein the digital

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camera includes a clock, further comprising:

determining an amount of electric energy available from the power source on the basis of at least one of a power source voltage value upon power initiation and the power source voltage decrease; and

setting a lower frequency for the clock if the amount of electric energy determined to be available is less than a predetermined amount.